UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,435	03/20/2001	Kerstin Krieglstein	MBP-005XX	1324

207 7590 06/17/2003

WEINGARTEN, SCHURGIN, GAGNEBIN & LEBOVICI LLP
TEN POST OFFICE SQUARE
BOSTON, MA 02109

EXAMINER
FORD, VANESSA L

ART UNIT	PAPER NUMBER
1645	

DATE MAILED: 06/17/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/786,435	KRIEGLSTEIN, KERSTIN	
	Examiner	Art Unit	
	Vanessa L. Ford	1645	

-- The MAILING DATE of this communication appears on the cover sh t with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5-8 and 11-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-8 and 11-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

FINAL ACTION

1. Applicant's amendment and response filed April 3, 2003 is acknowledged. Claims 2-4 and 9-10 have been cancelled. Claims 14-18 have been added. The Declaration filed under 37 CFR 1.132 is acknowledged.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in the prior Office Action.

3. Applicant's Declaration under 37 CFR 1.132 filed April 3, 2003 is sufficient to overcome the rejection under 35 U.S.C. 112, first paragraph of claims 5-8 and 12-13, page 3-5, paragraph 4 of the previous Office action.

Objections/Rejections Withdrawn

4. In view of Applicant's amendment and response the following objections or rejections are withdrawn:

a) all rejections of claims 2-4 and 9-10 are moot in view of Applicant's amendment canceling these claims.

b) Objection of claims 1, 5, 7 and 11, page 2, paragraph 1 of the previous Office action.

c) Rejection of claim 1 under 35 U.S.C. 101, page 2, paragraph 3 of the previous Office action.

d) Rejection of claims 5-8 and 12-13 under 35 U.S.C. 112, first paragraph, page 3-5, paragraph 4 of the previous Office action.

e) Rejection of claim 1 under 35 U.S.C. 112, second paragraph, page 5, paragraph 5 of the previous Office action.

f) Rejection of claims 1 and 11 under 35 U.S.C. 102 (b), pages 7-8, paragraph 7 of the previous Office action.

Rejections Maintained

5. The rejection of claims 1, 5-8, 11-13 and newly presented claims 14-15 and 18 under 35 U.S.C. 102(b) as being anticipated by Logan is maintained for the reasons set forth on page 6-7, paragraph 6 of the previous Office Action.

The rejection was on the grounds that Logan teaches the use of anti-transforming growth factor β (TGF-β) antibodies, Arg-Gly-Asp containing peptides, decorin and its functional equivalents such as biglycan and TGF-β antagonists to prevent, treat or suppress central nervous system pathology. Logan also teaches pharmaceutical compositions containing these agents, which can be administered to patients to inhibit or enhance the production of extracellular matrix in the central nervous system (see the Abstract).

Since the Office does not have the facilities for examining and comparing applicant's compound with the compound of the prior art, the burden is on the applicant to show a novel or unobvious difference between the claimed product and the product of the prior art (i.e., that the compound of the prior art does not possess the same material structural and functional characteristics of the claimed compound). See In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and In re Fitzgerald et al., 205 USPQ 594.

Applicant urges that the present invention differs from the prior art because the present invention is used for inhibiting the biological activity of TGF-β thereby allowing the survival of neuronal cells independently whether an injury has taken place or not. Applicant urges that it should be noted that survival means prevention of cell death and prevention of scar formation means prevention of inappropriate matrix formation and uncontrolled cell proliferation. Applicant urges that claim 1 has been amended to impart protection and survival of predamaged neurons by inhibiting the biological activity of TGF-β.

Applicant's arguments filed April 3, 2003 have been fully considered but they are not persuasive. The claims are drawn to a method of inhibiting the biological activity of transforming growth factor β on predamaged neurons with a compound inhibiting the biological activity of TGF-β. Logan teaches the use of anti-TGF-β antibodies and TGF-β antagonist in a method of inhibiting the biological activity of TGF-β (see the Abstract). Applicant is arguing limitations that are not in the claims, regarding whether or not injury has occurred or not occurred. There is no requirement or limitation in the claims requiring injury or non-injury. Therefore, the prior art reference anticipates the claimed invention.

6. The rejection of claims 1, 5-8, 11-13 and newly presented claims 14-18 under 35 U.S.C. 103(a) as being unpatentable over Logan in view of Alexander et al is maintained for the reasons set forth on pages 8-9, paragraph 8 of the previous Office Action.

The rejection was on the grounds that Logan teaches the use of anti-transforming growth factor β (TGF-β) antibodies, Arg-Gly-Asp containing peptides, decorin and its functional equivalents such as biglycan and TGF-β antagonists to prevent, treat or suppress central nervous system pathology. Logan also teaches pharmaceutical compositions containing these agents, which can be administered to patients to inhibit or enhance the production of extracellular matrix in the central nervous system (see the Abstract).

Logan does not teach the use of urokinase or tissue plasminogen activator.

Alexander et al teach that urokinase and anticoagulants are recommended for treatment when patients are at risk for cerebral hemorrhage. Alexandria et al teach that tissue plasminogen activator is effective in lysing blood clots in animals.

It would have been *prima facie* obvious to one having ordinary skill in the art at the time the invention was made to add the urokinse or tissue plasminogen activator of Alexandria et al to the pharmaceutical compositions of Logan because Alexander et al teach that urokinase and anticoagulants are recommended for treatment when patients are at risk for cerebral hemorrhage and Alexander et al has shown that tissue plasminogen activator is effective in lysing blood clots in animals. It would be expected

barring evidence to the contrary that the addition of urokinase or tissue plasminogen activator would disintegrate blood clots because it is well known in the art that the prevention of blood clots would be necessary for treatment of central nervous systems disorders.

Applicant urges that it would not be obvious to combine the teachings of Logan in view of Alexander et al since Alexander et al does not each a treatment of cerebral neuronal disease.

The claims are drawn to a method of inhibiting the biological activity of transforming growth factor β on predamaged neurons with a compound inhibiting the biological activity of TGF-β further comprising a second compound selected from the group consisting of urokinase and issue plasminogen. Logan teaches a method of inhibiting the biological activity of TGF-β on predamaged neurons comprising administering TGF-β antagonists. Logan does not each teach the use of urokinase or tissue plasminogen activator. However, Alexander et al teach the use of tissue plasminogen in cerebral disorders. It would be obvious to add the tissue plasminogen to the composition comprising TGF-β antagonists in the method of inhibiting biological activity of TGF-β as taught by Logan because Alexander et al has demonstrated that have been successfully used to treat cerebral disorders. There is nothing on the record to show that the combination of teachings would not suggest the claimed invention.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry of the general nature or relating to the status of this general application should be directed to the Group receptionist whose telephone number is (703) 308–0196.

Papers relating to this application may be submitted to Technology Center 1600, Group 1640 by facsimile transmission. The faxing of such papers must conform with the notice published in the Office Gazette, 1096 OG 30 (November 15, 1989). Should applicant wish to FAX a response, the current FAX number for the Group 1600 is (703) 308-4242.

Any inquiry concerning this communication from the examiner should be directed to Vanessa L. Ford, whose telephone number is (703) 308-4735. The examiner can normally be reached on Monday – Friday from 7:30 AM to 4:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynette Smith, can be reached at (703) 308–3909.

Vanessa L. Ford
Biotechnology Patent Examiner
June 14, 2003

JAMES O. WILSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600